

Atty. Dkt. No. 02CR145/KE (047141-0292)

### REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

No claims are requested to be cancelled.

Claims 1, 2, and 8-20 are currently being amended. No new matter is added.

No claims are being added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-20 remain pending in this application.

On pages 2-5 of the Office Action, claims 1-2, 5-7, 9, 12, 14 and 19 are rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Publication No. 2002/0089994 (Leach). The Examiner states:

Consider claims 1 and 8, Leach, JR. et al. clearly disclose and show a method of retransmitting a data cell comprising . . . inserting the first data cell at the tail of the retransmit queue . . .

Applicants respectfully traverse the rejection. However, to advance prosecution, Applicants have amended independent claims 1, 8 and 15.

On pages 6-9, claims 15 and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over Leach in view of U.S. Patent Publication No. 2002/0114292 (Kawabata). Applicants respectfully traverse the rejection.

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On pages 8-9 of the Office Action, claims 3-4, 6, 10-11, 13 and 17-18 are rejected under 35 U.S.C. § 103 as being unpatentable over Leach in view of U.S. Patent No. 7,016,304 (Chou). Applicants respectfully traverse the rejection.

On page 10 of the Office Action, the Examiner states that "Applicants' arguments with regard to claim 1 and 8 under 35 U.S.C. § 102(e) . . . have been fully considered but they are not persuasive." Applicants respectfully traverse the Examiner's statement. However, to advance prosecution, Applicants have amended claims 1, 8 and 15. Leach, Kadambi, Kawabata and Chou are referred to below as the cited art.

Independent claims 1, 8 and 15 now recite a method or system that places a cell requiring retransmission at the tail of the retransmit queue and then releases it from the head of the retransmit queue in response to an acknowledgement or retransmits it from the head of the transmit queue in response to the elapsing of the time to retransmit. The retransmitted data cell is reentered into the tail of the retransmit queue. This method or system provides significant advantages in terms of efficiency.

The present application describes embodiments of independent claims 1, 8 and 15, according to one embodiment as follows:

This queue discipline minimizes the time spent searching the queue for cells. The cells at the head of the queue are always the oldest and the ones to be retransmitted next. Once a cell that has been reached that is too new to retransmit, there is no point in looking further.

See present application p. 12, ¶ 40. Further, the specification states:

A cell at the head of the retransmit queue is tested for its state indicating that it has either been acknowledged or not. If the cell needs retransmission, then a copy of the cell is made and placed at the tail of the queue and the cell is retransmitted. The next entry is then promoted to the head of the queue and the process is repeated. This process continues until a cell is found that does not need to be retransmitted due to its timer value being below the retransmit

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threshold. At this point, the search through the queue is discontinued because the recirculation mechanism has insured that all subsequent queue entries are below the retransmit threshold. This may be considerable improvement over leaving queue entries in their original place in the queue and searching the entire queue for entries requiring retransmission.

See present application, pages 11-12, ¶ 37. Accordingly, the retransmission scheme of claims 1, 8, and 15 provides significant advantage.

In contrast, conventional retransmit queuing algorithms (such as Leach) require that, cells that are not acknowledged within the timeframe be retransmitted out of the queue. "Since the retransmit queue is a FIFO mechanism, this may entail a linear search through the entire queue looking for cells that need to be retransmitted due to time out and then sending them out." See present application, page 10, ¶ 36. This type of search consumes significant real time and degrades system performance. Clearly, Leach is this type of system. Leach requires a retry logic 308 as part of a transmission scheduler 307 that modifies a frame based on the program value within the RS field of the frame descriptor of the frame. There is no discussion of the use of a retransmission queue and an algorithm based upon a data cell at the head of the retransmission queue as recited in independent claims 1, 10 and 15.

Kawabata, Kadambi and Chou are not cited to provide for the deficiencies of Leach. Accordingly, it is respectfully submitted that claim 1 and its dependent claims 2-7, claim 8 and its dependent claims 9-14, and claim 15 and its dependent claims 16-20 are patentable over the cited art.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

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The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 18-1722. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 18-1722.

Respectfully submitted,

Date

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By

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